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10 UNITED STATES DISTRICT COURT

11 NORTHERN DISTRICT OF CALIFORNIA, SAN FRANCISCO DIVISION

12 WAYMO LLC,
Plaintiff,

CASE NO. 3:17-cv-00939

13 vs.

**WAYMO LLC'S RESPONSE TO
REQUEST FOR LITERATURE**

14 UBER TECHNOLOGIES, INC.;
15 OTTOMOTTO LLC; OTTO TRUCKING
16 LLC,
Defendants.

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18 Pursuant to the Court's Request for Literature (Dkt. No. 73), Plaintiff Waymo LLC
19 ("Waymo") submits the following publication, attached hereto as Exhibit A: *Performance*
20 *Analysis of Next-Generation LADAR for Manufacturing, Construction, and Mobility*, National
21 Institute of Standard & Technology (2004) (the "NIST Publication") (available at
22 <http://fire.nist.gov/bfrlpubs/build04/PDF/b04032.pdf>). The NIST Publication discusses
23 fundamental concepts underlying the technology at issue in this case, including time-of-flight
24 measurements, LiDAR accuracy and resolution, 3D scanning, and single-laser versus laser-array
25 systems. The NIST publication also addresses the adaptation of LiDAR to self-driving vehicles.
26 Waymo respectfully submits that, after consulting with its employees and experts, it was unable to
27 identify a single publication in the prior art or public domain that also specifically addresses
28 strategies for positioning multiple laser diodes behind a lens for the best overall detection in

1 autonomous vehicles or the use of a single lens to project outgoing light beams and focus
2 incoming reflections, apart from the patents-in-suit or other Waymo documentation. However, the
3 NIST Publication includes a discussion of different optical systems that are used for LiDAR
4 applications, which will provide a helpful backdrop for understanding the optical systems
5 specifically at issue in this case.

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7 DATED: April 5, 2017

QUINN EMANUEL URQUHART & SULLIVAN,
LLP

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9 By: /s/ Charles K. Verhoeven

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